DEVELOPMENTAL METHODS OF RAILROADS

BY

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I. Introduction.

The economic history of the United States since 1840 has been to a large extent a history of railroads. Stretching out beyond the narrow boundaries of the mountains of the Atlantic Coast to the wide-spread lands of the Mississippi Valley and the Western States, they have fostered a remarkable development of industry and commerce.

These American railways were conceived and built by men of infinite foresight and with large faith in this new country. Europe with centuries of development built her railroads to haul traffic already existing. Traffic could be counted on before the lines were built. In the United States conditions were entirely different. The country was sparsely settled and for the most part, unproductive and undeveloped at the time that the railways were built. These roads had to be built for the future; their purpose was to create traffic; secure settlers for the vast tracts of land; build towns; create and enlarge business activities.

Not only have the railways been the greatest factor in the development of the country, but they have also been one of the greatest civilizing forces in the United States. They have played an important part in bringing about a homogeneous society; they have helped to stimulate education; they have encouraged and perpetuated American ideas and institutions and have become a necessity to all forms of industry.

Our present industrial organization is based almost entirely upon the possibility of moving large quantities of

freight long distances at cheap rates. The character of our industries is at every point conditioned by the fact that we are able to supply our manufacturers with raw materials obtained hundreds of miles away. It is the railways that have enabled the various industries to disregard the location of supplies of fuel and raw materials that are used and to locate themselves with respect to labor supply and the distribution of finished goods.

The railways have not acquired this importance which they now hold by passively waiting for traffic to come to them. They early recognized that they had the commodity, transportation, to sell just as other industries have other commodities to sell and immediately became busy to increase their traffic.

Prior to the enactment of the Interstate Commerce Law of 1887 special rates and unfair discriminations were common methods employed by the railways in developing their traffic. Since that time and, particularly, since the passage of the Elkins Act of 1903 and the Hepburn Act of 1906, freight solicitation has changed in character and, as a result, better and less discriminatory methods have been adopted.

These newer practices have brought abput a reorganization of the developmental work of the railways. At first the work of developing traffic was carried on by the general agents of the traffic department incidentally with their other duties. This is still true of many of the smaller roads. Due to the pressure of their own duties and increasing importance of this new work a separate department had to be created, As a result most large railways include in their organization an

Industrial Department.

This Industrial Department of the railways carries on both agricultural and industrial developmental work and in many cases also immigration work. The importance of this department has increased to such a large extent during the last few years that thousands of dollars are annually spent in its extension. As shown by the following table the amounts spent during the year ending June 30, 1913. by the industrial departments of a representative number of roads varies from $4,055 in the case of the Lake Shore and Michigan Southern to $124,980 in the case of the Southern Railroad. Apparently the industrial departments of the southern and western roads are expending larger amounts than are the industrial departments of the eastern roads.

The large amounts expended annually by the industrial departments of the railways are spent along three geheral lines: (1). agricultural developmental work which consists mainly in securing desirable settlers for the land adjoining their lines, in increasing the land available for farming, in assisting farmers in adopting scientific methods, and in marketing their products; (2). industrial developmental work in which the railways cooperate with manufacturers and merchants in locating industries and building up their business; and (3). freight solicitation which resembles the salesmanship common in manufacturing and merchandising establishments.

Amounts Expended by the Industrial Bureaus of Various Railways During the Year Ending June 30, 1912.

Lake Shore and Michigan Southern	$4,055.
New York, New Haven and Hartford	4,946.
Boston and Maine	5,717.
Chicago, Burlington and Quincy	12,009.
Lehigh Valley	12,961.
Union Pacific	14,281.
Mobile and Ohio	14,339.
Baltimore and Ohio	15,649.
Chicago and Eastern Illinois	18,852.
Southern Pacific	19,042.
Missouri Pacific	19,600.
New York Central and Hudson River	20,247.
Minneapolis, Saint Paul, and Sault St. Marie	25,438.
Chicago, Milwaukee and Saint Paul	29,060.
Long Island	30,832.
Sea Board Air	31,118.
Illinois Central	37,360.
Norfolk and Western	39,933.
Pennsylvania	41,845.
Louisville and Nashville	43,497.
Saint and San Francisco	49,159.
Chicago and Rock Island	50,056.
Northern Pacific	89,180.
Great Northern	106,832.
Atchison, Topeka and Santa Fe	121,934.
Southern Railway	124,980.[1]

1. Statistics of Railways in the United States 1912.

II. Agricultural Developmental Work: Securing Settlers.

The improvement and further development of agriculture is a matter of great public importance in the United States, which depends for a large part of its annual income on the products of the farm. The Federal and State governments have been and still are expending large sums for carrying on agricultural experiments and for spreading far and wide through the medium of bulletins and magazines information regarding the methods of farming in order to develop one of the most important industries of the nation.

Most of the transportation companies have come to realize the importance of agriculture as a source of income and are giving special attention to its development and extension. During the year ending June 30, 1912, the products of agriculture furnished 179,154,919 tons of traffic or 10.03 per cent of the total tonnage hauled by the railroads.[1] Animal products furnished a tonnage of 43,394,036 tons or 2.42 per cent of the total tonnage in the same year. During the year ending June 30, 1900, the tonnage of the products of agriculture was 53,468,496 tons and the products of animals 14,844,837 tons.[2] Thus we see that in twelve years there was an increase of 233 per cent in the tonnage of agricultural products hauled and an increase of 191 per cent in the tonnage of animal products hauled.

This large increase in tonnage during the twelve years has been due to no small extent to the interest shown by the railways in this line of work. Early in 1912, the mileage operated by railroads engaged in agricultural promotion was

1. Statistics of Railways in the United States June 30, 1912.
2. Statistics of Railways in the United States June 30, 1900.

more than three-fourths of the total railway mileage of the United States. The mileage operated by railways working to secure new agricultural settlers along their lines was practically two-thirds of the railway mileage of the country, while the companies which were engaged in promoting agricultural education operated practically seventy per cent of the total mileage. In this connection the following table will be found interesting.

Table 2.

Mileage Operated by Railroads Making Organized Efforts to Promote Agriculture.

Groups	Total miles operated	Miles operated by railroads making organized efforts to- Increase the number of farmers miles	% of total	Promote agricultural education miles	% of total	Increase the number of farmers or promote agriculture miles	% of total
I.	8,240	5,655	68.6	6,906	83.8	6,906	83.9
II.	24,521	1,733	7.1	16,947	69.1	16,947	69.1
III.	36,624	6,997	26.3	15,490	58.2	15,490	58.2
IV.	15,221	10,746	70.6	10,965	72.	10,965	72.
V.	30,076	23,664	78.7	22,857	76.	23,838	79.3
VI.	52,379	32,080	61.2	30,398	58.	41,572	79.4
VII.	14,099	13,525	88.8	11,466	81.3	12,525	88.8
VIII.	34,653	29,403	84.8	30,440	87.8	30,805	88.9
IX.	19,405	14,067	72.5	11,615	59.9	14,766	76.1
X.	24,774	17,634	71.2	17,072	68.9	17,634	76.2[1]

1. Railroads and Farming, Frank Andrews.

The two chief motives which have led the railroads to promote agriculture are, firstly, the large amounts of revenue derived from agricultural products, estimated to be about $400,000,000 a year, and, secondly, the large areas of land that the railways have had for sale. The total amount of land granted to railroads up to June 30, 1911 was 115,500,000 acres. One railroad had been granted as many as 33,300,000 acres alone.[1] It is more than sixty years since the first land grant and so in the past the railroads have been very much interested in securing settlers for lands so sedured. During the later years, however, they have directed their attention to securing settlers for lands owned by others.

In addition to securing settlers for the lands adjoining their right of way, the railways have been making efforts to educate the farmers and to increase the production of their farms. They also spend a great deal of time and money in helping the farmers to market their products at the best prices and to increase the area of land available for farming.

In order to do this work effectively many roads place a separate official in charge of each class of work. The Frisco, for instance, has the following staff in charge of various departments of this work: Director of Development, Supervisor of Agriculture, Superintendent of Demonstration Work, General Agricultural Immigration Agent, Horticultural Agent, Dairy Agent and Supervisor of Farm Marketing.[2] Other railways have officials such as the following: Milk Agent, Live-Stock Agent, Supervisor of Seeds, and officials of a similar nature.

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1. Railroads and Farming, Frank Andrews.

2. Railway Guide, May 1915.

As stated above the railways are vitally interested in increasing the number of farmers along their lines. Immigration work of this character was started as early as 1861 by some roads. By 1870, the land department of the Union Pacific Railway was in full operation, advertising 12,000,000 acres of farming and mineral lands for sale, which it had secured from the government as a bonus for building the railroad.[1]

The same was true of the Northern Pacific Railroad. While its lines were being constructed, it was busy in soliciting settlers and selling the new lands along its right of way. By 1872, this line had applications for 95,000 acres of land in Minnesota and for 45,204 acres in the territory of Washington. The company sold the land to settlers on comparatively easy terms. They required ten per cent of the selling price to be paid at once in cash, and ten per cent in each of the following three years and for the following four years fifteen per cent was to be paid each year. Thus the settlers were given seven years in which to pay for their farms. In some cases, in addition to this, the railroad erected tenant houses and furnished tools, seeds, and supplies on reasonable terms to the settlers.[1]

Probably the most common method of acquainting settlers with various parts of the country where the railways have land to sell or where they desire settlers to move is by the issuance of booklets and literature of various sorts describing the territory. These pamphlets vary considerably as to size, form, and contents, but most of them are issued in what is called "pocket size".

1. Railroads and Farming, Frank Andrews.

Most of these booklets are illustrated by photographs and sometimes sketches and impressions from paintings. These photographs show not only views of live-stock, poultry and products of the soil, but also views of the landscape, groups of farm buildings and other items of interest which will tend to stimulate a desire in a prospective settler to go there and seek a new home. In addition to the photographs there are numerous maps and charts which are very valuable on account of their clearness and the details shown.

Some of these publications treat of large areas such as entire states or groups of states while others treat only of certain localities. The most attractive ones covering a large territory are printed in large editions of as high as 350,000 copies while others print but 10,000 to be distributed free among prospective settlers.

These various attractively printed and illustrated booklets are issued for the purpose of familiarizing the public with the farming conditions in the different parts of the country. They state the crops that can advantageously be raised in the various districts, the yield per acre, the marketing conditions and items of a similar nature, while others give the list of farms that can be purchased and a description of them.

Frequently press notices dealing with some particular territory are prepared for the newspapers. The railways furnish the publishers with photographs and illustrations displaying the agricultural advantages of the country. This sort of publicity is for the most part confined to small local weekly

papers.

While the literature of the sort described naturally calls attention to the bright side of the story and places little or no emphasis on the disadvantages of the region advertised, it is nevertheless true that it is to their advantage to secure a satisfied settler and greatly to their disadvantage to have him become dissatisfied, return home, and spread an unfavorable report of the country where he went.

One of the older forms of advertising still in existence and used very extensively at the present time is the exhibits of the products of various parts of the country through which the railroad runs and to which the public are encouraged to move. Large numbers of these exhibits are placed in rooms especially provided for the purpose while others are displayed in rooms used for other purposes as ticket offices and passenger waiting rooms or in the offices of the industrial or immigration agent. Again certain displays of farm products are shown in a certain city for a few months and then moved to another city or town along its line until a whole circuit has been completed.

Closely associated with this form of exhibit and probably the most popular form is that of the agricultural train. These trains cover a certain territory and stop at all the important towns along the route for a day or more. They carry exhibits not only, of all the various grains, fruits, vegetables and other products raised on the farms adjoining the railroad, but also live-stock, poultry, modern improvements as silos and dairy barns, with all the latest improvements, in miniature.

After the railroads have stimulated a desire in the public

by the above methods to seek a new territory, they offer them further inducements as low fare tickets to inspect the country advertised. Round trip tickets of this sort are called "homeseekers" excursion tickets and give to the purchaser an opportunity to spend a few weeks traveling within a certain described territory with stop over privileges to examine the country more carefully. In some cases a railroad representative accompanies the travelers and points out to them the available lands for sale. The time allowed for the round trip is usually limited to a certain number of days while the fare is but slightly more than the regular fare one way. On many roads these tickets are sold the year around and are good at almost any time, while on others they are sold but for part of the year and must be used from certain starting points.1

Occasionally, in addition to the "homeseekers" excursion rates, and as a further inducement, "colonist" excursion tickets are sold to settlers who have already purchased land and desire to move into the new territory. The main difference between the "colonist" and "homeseekers" excursion tickets is that the former are only one way excursions and are issued only for a limited time usually in the spring. Often as an additional inducement, low rates are given to the colonists on their household furniture and farm implements which they take with them.1

In order to secure immigrants in the territory traversed by their lines, it is often necessary for the railways to cooperate with land companies, bankers and promotion organizations

1. Railroads and Farming, Frank Andrews.

These land companies in many cases organize excursion parties and personally accompany prospective buyers to the various places where they have lands to sell.

The farmers as a rule are more intimate with the bankers than almost any one else. The banker, therefore, has greater influence in advising farmers in regard to certain sections of the country. The Saint Louis and San Francisco Railroad is very active in this line of cooperation with the bankers. When they send out pamphlets, they also inclose cards upon which are provided spaces for questions which a prospect may desire to ask concerning the territory in which he desires to locate. These cards are then sent to the bankers of the community who promptly answer the various inquiries. The bankers are also furnished with the names of all settlers moving into a certain territory and thus given a chance to cooperate. Thus we see that the settlers are first put into touch with the best class of citizens of the district, which is bound to have a stimulating effect upon them.[1]

The railways have come to perceive the great value of cooperating with the new inhabitants of their territories. They are, therefore, always ready to help the colonist tide over the first few years of struggle by different methods, until by competence and experience he will be assured a continued livelihood and prosperity.

One of the most extensive plans of this sort is that of the Canadian Pacific Railroad. One of their recent plans of colonization provides for the expenditure of several millions

1.Development Work on the Saint Louis and San Francisco, Railway Age Gazette, May 22, 1914.

of dollars in making loans of $2,000 each to new colonists in Western Canada. They intend to make these loans on productive farms, to farmers having some money and machinery but lack funds sufficient to buy and stock a farm and build the necessary structures. The settlers will be required to pay one tenth of the purchase price and have sufficient funds in reserve to keep themselves for a year. This loan of $2,000 which is to be made will be used to pay for buildings, fences, and the cultivation of fifty acres of land. This is to be added to the cost price of the land and paid during a period of ten years with interest at six per cent.[1]

Another scheme put into effect by the Canadian Pacific Railroad provides for the division of certain tracts of land into eighty and one hundred acre farms. The company intends to erect the necessary buildings before the arrival of the settlers since, by constructing such a large number, they will be able to have them built more cheaply than the colonists could build them. The cost of their erection will be added to the cost price of the land, which varies from fifteen to forty dollars an acre.

Furthermore, the company intends to establish the settlers in colonies of sixteen and build churches and schoolhouses for their benefit. In certain parts, the scheme provides for the sowing of crops before the colonist arrives, so that the crop will be ready to harvest upon his coming. To a few farmers, who demonstrated their ability and progressiveness, the railroad

1. Canadian Pacific Colonization Plan, Railway Age Gazette, April 26, 1912.

proposes to supply good breeds of live-stock and have them conduct live-stock farms.[1]

The Norfolk and Western Railroad purchased a considerable tract of land near Philadelphia and divided it into small farms of ten to fifteen acres each suitable for truck farming. In the centre of the tract they erected a club house as a place for social gatherings. They furnished the club house with tables, chairs, and other furniture, as well as books and magazines for the convenience and enjoyment of the new inhabitants.[2]

In this matter of immigration the railways do not attempt so much to secure numbers as to attract the most desirable classes to their territory. At first, they sought immigrants from Europe, but recently the tendency has been to induce the people from places east of the Mississippi River to move to the West or for those living in the cities to move to the farms.

For the year ending March 31, 1914 the Saint Louis and San Francisco Railroad reported that 2,934 farmers were located along its lines. These farmers brought with them 1,997 cars of farm implements and purchased 333,765 acres of land or 521 square miles. The larger percentage of this development took place in the Ozark region of the Missouri, which has received fifty per cent of the immigrants locating in the territory tributary to the railroad.[3]

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1. The Canadian Pacific as an Agricultural Promoter, Railway Age Gazette, January 30, 1914.
2. Getting City People Back to the Country, F.H. LaBaume, Proceedings of the Railway Development Association, November 1914.
3. Development Work on the Saint Louis and San Francisco, Railway Age Gazette, May 22, 1914.

To this large number of settlers all sorts of farms are offered. They can secure old farms in large or small areas suitable for truck farming, and poultry raising. Irrigated lands in the West as well as cleared timber land and drained swamps are always open to newcomers.

These varied tracts are suitable for all kinds of farming so that all personal whims and fancies can be satisfied. The southern railways are trying to encourage their landseekers to engage in tobacco and cotton raising. They arrange get-together meetings to discuss dairy problems and to influence the farmers to buy good breeds of dairy cows. They also cooperate in locating creameries and marketing dairy products. In other regions truck farming is proposed in order to provide vegetables and garden products for the city markets. Stock and poultry farms, as well as fruit farms are purchased by many. In California, Washington, and some of the other western states, as well as in Florida and Georgia, are found great opportunities for fruit growers, due to the mild climate. By far the largest number of farmers carry on a general agricultural business. This appeals to them more, since here they are given a chance to cultivate a large variety of products. It produces more satisfactory results on the whole, since a bad year will not usually mean total destruction as there will, probably, be some products that will yield a return.

III. Agricultural Developmental Work: Increasing the Area of Land Suitable for Farming and Increasing Farm Production.

In addition to the many agricultural schemes for securing and bringing a new population into their territories, the railways are making considerable efforts to develop unproductive and unavailable lands into plots suitable for farming purposes. Some of the methods practiced are to open for settlement parts or all of certain reservations, to irrigate arid lands, to drain swamps, to build railroads into remote places and to sell large plots of waste land.

The efforts along the line of irrigation often consists in trying to induce such authorities as the various states or certain companies to take action. Nevertheless, various projects are endorsed and undertaken by the railways themselves from their own funds. Owners of large areas of cut down timber land are persuaded to put them on the market in suitable sizes and on favorable terms to prospective farmers. A great deal of such land has been placed on sale in West Virginia, Virginia, Michigan, Wisconsin and the Pacific Northwest.

The railways have been very much interested in the drainage of swamp lands in North Carolina and along the lower Mississippi River, and also in the irrigation of certain territories west of the Rocky Mountains. An example of the work carried on in the clearing and reclaiming of waste land is that of the Long Island Railway. Mr. Peters, the president of the road, purchased eighteen acres of scrub oak "waste" land in 1905 in Long Island. He cleared, grubbed, plowed, and enriched the soil and kept an account of all expenses. To commence with

he sowed rye and within sixty days had an excellent stand. In the early spring of 1906 the rye was plowed under and early vegetables planted which yielded a good crop.

After the experiment had proved a success, advertisements followed in the various papers and magazines. Within four years after the establishment of the first demonstration farm, 4,200 families were added to the island's agricultural population. The great majority of the settlers on these cheap lands are now making good and lands formerly practically worthless are selling for comparatively high prices. Success with high quality apples, peaches, pears, plums, and other fruit has resulted in the establishment of small orchards and some very extensive ones on the island within the last few years.1

One of the southern railways in 1906 selected a farm on sandy soil, regarded by many experienced men as practically worthless for agricultural purposes. Many different kinds of seeds were planted upon this farm. By proper cultivation and care various vegetables were raised with great success. Within four years there were grown on farms of a similar nature over three hundred different kinds of plants, vegetables and fruits. The success of this experiment has been evidenced by the large number of truck farms that have been established along the road's lines and by the large amount of freight traffic that has resulted since the first experimental farm was established.2

Not only have the railways been eager to increase the area of farm land, but they have also taken a vital interest

1. Ways and Means to Increase a Railroads Agricultural Tonnage, Proceedings of the Railway Development Association, November 1914.
2. Railroads and Farming, Frank Andrews.

in the solution of the problem of soil fertility and the development of better agricultural methods. Any increase in the volume of agricultural products gives the railways not only more traffic to haul from the country to the markets, but also means a corresponding increase in the transportation of goods from the cities to the farming communities.

In the early days when the principal farm products consisted of corn and wheat and whenever a poor crop was raised, the railways suffered severely as well as the farmers. It affects them even at the present time, but not as much since there is a more diversified type of farming. The railways soon became aware of this fact and saw that they musy not be entirely dependent upon one crop and so took steps to bring about a change in conditions.

During the past ten years the population of the United States has increased at a much faster rate than has the production of cereals. In some of the European countries as Germany and England, which have been paying a great of attention to soil fertility, the reverse has occured. The farmers in this country have for the most part tried to cultivate as much land as possible. They have not attempted to make the land produce the highest yield, but have rather sought to increase their yield by cultivating larger tracts. The railways have fully realized this and have started campaigns to induce the farmers to increase their yield per acre by fertilization and educating them in scientific agriculture. The efforts of the railroads along this line of work are, to a great extent, made in cooperation with Federal and State authorities, as well as the

numerous agricultural colleges throughout the country. The Federal and State authorities often conduct demonstration plots in conjunction with the railways, while the agricultural colleges furnish lecturers for the agricultural trains.

Probably the most common and effective method used for displaying and experimenting with agricultural methods is that of the demonstration farm. In many cases the railroads own the experimental plots and carry on the venture themselves. In other cases the farmer is paid for the use of his land and carries on the experiment according to the instructions of the railroad's agricultural director. The farmer is furnished with the seed, sometimes also with fertilizer and implements and is then given the crop that he raises. He must report to the company the results obtained and any difficulties that may have arisen. The farmer thus sees how the experiment was carried on and if it is successful, he can apply the same methods to his own work. The neighbors also take more interest and consider more seriously an experiment carried on in this manner by one of their freinds than one carried on by the railways alone. [1] In the above manner a large number of demonstration plots can be managed in different sections of the country with a variety of products at the same time.

It often happens in this connection that the railways plant parts of their right of way in order to try out various schemes. The care of these plots is placed in the hands of the roadmaster who delegates the section laborers to tend to the

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1. Transportation Companies as Factors in Agricultural Extension, John Hamilton.

crops and harvest them. The results of these experiments are often published and distributed to persons desiring to learn of the results. Sometimes the station agents at the small towns are given an opportunity to visit the demonstration farms and on their return they are encouraged to tell their fellow-townsmen of the work that is being done and persuade them to follow the same methods.

A large majority of farmers continue to insist on planting the same kind of crops and follow the same methods which they used in the region from which they moved, regardless of the adaptation of the district to those crops. The same is true of crop rotation. The average farmer has a poor understanding of the principles of upbuilding the soil and is inclined to plant the same crop year after year on the same soil. Another important fact brought out by these experiments is that the ordinary tiller of the soil tries to keep more land under cultivation than he can handle properly. This reduces the yield per acre to such an extent that it would have been far better for him to farm a smaller area more thoroughly.

The Frisco officials claim to have demonstrated by their experimental farms that the products from lands may be increased seventy-five per cent by the use of better methods. By selecting fourty-four farms in Missouri and fourty-nine in Oklahoma of from five to ten acres consisting of the poorest as well as the best soils, they have demonstrated the remarkable results that can be obtained by proper care even on poor lands. They have also experimented with drought resisting crops, where the rainfall is uncertain and insufficient to produce certain stable crops

and so have been able to substitute other products in their place.[1]

In order to bring the results of their experiments and the advantages of proper agricultural methods more vividly before the rural population, the railways have resorted to the demonstration train. In the year 1910 fifty-two of the leading railroad companies were running agricultural trains in cooperation with Federal and State authorities. These trains contained two hundred and thirty-nine cars or an average of forty-six cars each. They covered during the year 40,771 miles of track and occupied the equivalent of 589 days for a single train. There were 1,793 stops ranging from forty minutes to two days each and the trips varied from a few days to several months in length. On the average the cost of operation was $95.80 per day.[2]

During the time allowed for stops, lectures were given; demonstrations were made and exhibits of agricultural products were shown to the public. These lectures included a variety of subjects, dairying, fruit growing, soil fertility, truck farming, seed selection, insect pests, crop diseases, marketing, good roads, and numerous similar topics. The lectures delivered on a certain trip may be devoted to a single topic, while others may include a variety of subjects. The exhibits in the train are most frequently along the line upon which the lectures are given.

1. Development Work on the Saint Louis and San Francisco, Railway Age Gazette, May 22, 1914.

2. Transportation Companies as Factors in Agricultural Extension, John Hamilton.

For example, if the talks are given on dairying, dairy cattle together with modern dairy appliances are exhibited and often lantern slides are shown to make the lectures more impressive and instructive. The chief aim and purpose of the instruction train is to place a practical object lesson before the farm masses, illustrating the best and most profitable methods of producing the standard farm crops and to stimulate in them a desire to improve their way of farming.

Closely allied to the above forms of exhibits, but on a much larger scale are the Land Shows at Chicago and the Land and Irrigation Exhibit at New York. These displays contain all varieties of products from all parts of the country. There is thus an opportunity afforded to compare the crops of one part of the country with that of another. These large land shows have been made possible only by the combined efforts of many railroads.

Since the railways are beginning to realize more and more the great advantages afforded by organized agencies for the improvement of agriculture, they have naturally been attracted to the advantages of the local county fairs. This influence, if properly directed and controlled, will prove to be of great service since it furnishes a local agency in each county that is vitally interested in the development of the agriculture of that particular region. They exhibit at these fairs the commodities raised by them upon their demonstration farms or farms adjacent to their lines. Futhermore, as is often the case, they perform demonstrations as packing fruit, spraying trees, killing and preparing poultry for market and other similar demonstrations.

As an inducement to the farmers along their lines to exhibit their products and live-stock, the railways in some cases give free transportation for articles of this nature and in other cases they give much reduced rates on the exhibits. Very often the railways give prizes for the best exhibits at the county fairs or in contests conducted by themselves. In these contests, which they conduct on their own initiative, prizes are usually offered to the successful competitor in each county and a grand prize for the best exhibit in the state. The prizes are usually given in money or live-stock, while some have been known to give small plots of land. One important railway tendered a reward of five hundred dollars to the farmer in the state whose farm showed marked superiority over all others in management and profitable production. A very common premium given by the carriers for successful farming is a free scholarship entitling the holder to a short course in agriculture at one of the state colleges. These are usually offered to the young farmer boys in whom the companies wish to create a desire to stay on the farm and grow better and larger crops.1

As an inducement for keeping interest alive in agricultural reforms, the carriers have found associations and clubs of great value. As a result they have attempted, whenever possible, to organize among the farmers live-stock breeders and other county agricultural associations in the territory tributary to their lines. They hold meetings at various times during the year and are often addressed by railway officials and agricultural lecturers on topics of current interest. In many places these

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1. Transportation Companies as Factors in Agricultural Extension, John Hamilton.

organizations have secured permanent agricultural experts to advise with them in regard to farming conditions in their locality.

Recently the companies have become aware of the advantages of printing and distributing bulletins and periodicals to the farmers. The Southern Railway publishes a magazine called the Southern Field which it sends out at frequent intervals to persons living along its lines. The Long Island Railway publishes the Long Island Agronomist and many other railways publish similar magazines. Usually these periodicals are sent free to the settlers along their lines, but in other cases a small charge is made. Similarly many carriers send out bulletins at different intervals. The Lehigh Valley and the Rock Island companies are prominent in this line of work and have distributed a number of bulletins.

In order to enable the farmers to plant new varieties of products, the carriers oftentimes distribute the new seeds to them free of charge. In other cases the companies maintain a free testing department of their own and test all seeds that are offered.[1] A few years ago when many farms owned by poor farmers, tributary to the railway lines, were damaged by the overflow of the Mississippi River, the Atlantic Lines of the Southern Pacific made appropriations for purchasing and distributing seeds and buds to help them.[2] Such consideration on the part of the railways is bound to meet with appreciation from the farmers and secure their loyal support. Again the

1. Aiding the Farmer, Railway World, March 1914.

2 Railway Age Gazette, September 27, 1912.

carriers are known to have sold seeds to settlers during a period of depression for deferred payments and shipped to them on rates much lower than the ordinary rates.

In a similar manner the railways are cooperating in inducing the farmers to use fertilizers to improve their lands. These fertilizers are usually transported at exceedingly low rates, barely sufficient to pay for the cost of hauling. Other railways as the New York, New Haven and Hartford have established mills for grinding lime found in deposits along their right of way. The farmers were unable to take advantage of these large deposits and so the railway came to their assistance and provided the necessary machinery to grind it and make it available for the farms.

Since farm laborers are essential to successful farming the railways have, when necessary, aided the farmers to secure them. One of the most enterprising roads has adopted the following plan: blanks are given to the landowners who desire to hire laborers. On these blanks they state the kind of labor desired, the wages they are willing to pay and other information that may be of use in securing workmen. These requests are then given to the station agents who foreward them to the proper official. These officials then cooperate with the state employment bureaus and endeavor to secure the laborers. A similar service is also performed for the workers.

There are two kinds of farm help sought: the regular farm hands who desire jobs for the entire year and the seasonal job seekers. The latter are most prominent in the states of Minnesota, North Dakota and some of the northern states during

the harvest time. The railways place placards in their various stations, stating where help is wanted and the wages offered. In order to induce the laborers to seek this seasonal employment, they offer low fares and sometimes run second class trains to accommodate them.[1]

As profitable production does not depend entirely upon scientific agriculture and the securing of suitable help, but also upon the ability of the growers to market those products, which are not consumed locally, in places where they are in demand many leading companies employ men experienced in produce marketing. They send them among the farmers of their districts to give them advice as to how to sell. Others publish for distribution among the growers monthly magazines, which give accurate and detailed information as to the character and conditions of the markets in the various cities and also the freight rates between numerous points.[1]

Farmer's institutes and truck growers' associations have also been organized. The company keeps in touch with these and notifies them promptly of changes in markets and advises them as to the localities where they may profitably sell their supplies. Soliciting freight agents are also common in all the large cities. They keep the individual growers informed daily during the shipping season as to the exact marketing conditions in the city where they are located.[2]

A very important service in this connection rendered by the railways is that of diverting shipments "en route" at the

1.Railroads and Farming, Frank Andrews.

2. Transportation Companies as Factors in Agricultural Extension, J. Hamilton.

notice of the shipper. If for example, a car of produce is billed to some large distributing centre and later before the car arrives, the company's agent discovers that there is a glut in the market at that point. He notifies the consignee who, in turn, has the car diverted to another city less congested. All this information is given by the railways free of charge. By this careful watching for the interests of the shipper, business has been made more profitable for the company as well as for the shipper.

One large railway has divided the territory tributary to its lines into districts and placed an industrial agent in charge of each territory. These agents then familiarize themselves with the products obtainable in their territory, their quality and quantity, when they mature, how packed, and where marketed. The names of dealers, hotels, restaurants, and other consumers are tabulated and given to the producers who desire better markets. The names of the producers are also given to dealers and others who desire to secure better products. This starts correspondence between the producer and the buyer and the movement of fruit, vegetables, and other farm products to the large cities and small towns which would not otherwise secure them.[1]

The companies at many places instruct the shippers how to grade and pack the various crops by conducting a sort of educational campaign. When the crops are ready to move the railways often establish sheds with tables at the various

1. Efficient Marketing of Farm Produce, D.G. Mellor, Proceedings of the Development Association, November 1914.

stations. The problem of moving within a few weeks the seasonal crops such as peaches and strawberries requires efficient organization on the part of the railways. Their efforts are appreciated by the growers who are encouraged to take even greater interest in the preparation of their crops for the market.

In order to prosper most, the farmers and growers must raise commodities suited to the tastes of their customers and they must know how to grow these crops in large quantities. They should know how to prepare their products for the markets so that they arrive at the points of destination in the best condition and command the highest prices. Most of the farmers are producers and not merchants and must, therefore, have help in selling their produce, if they are to realize the greatest profits on their products. The railways are in a very favorable position to do this for the farmers and in so doing, they not only increase the farmer's capacity and inclination to produce, but also add to their own volume of traffic and net profits.

The interests of the railroads and the farmers are interdependent and for their highest and fullest development cooperation is a necessity. An injury to one is an injury to the other. The farmers need transportation and the railways need freight. What the various railways do to increase production along their lines, they do for themselves for it in turn brings them more freight and consequently more profits.

The agricultural train, the agricultural expert in the employ of the railways, the demonstration farms, the cooperation in marketing, and other activities of a similar nature on the

part of the railways are a recognition of this interdependence. The vast resources and special facilities of the railways for carrying on this agricultural promotion work affords many opportunities for aiding the community in rural betterment not possessed by any other agency.

IV. Industrial Developmental Work.

The first strictly industrial department established by any railroad in this country was that of the Chicago, Milwaukee and Saint Paul Railroad on January 1, 1891. At this time the railway officials knew but little, except of course in a general way, concerning the resources of the territory tributary to their lines. They were chiefly interested in the expansion of the railway net work into new territories rather than to the expansion and creation of industries.

The purpose of the industrial departments of the railways is the further development of the territory traversed by their lines. They seek to increase the number of industries in their territory; they spread industrial information and advise manufacturers of specific products in regard to raw materials, labor supply, and suitable locations. This department also endeavors to enlarge the trade of the industries already established, so that growth and prosperity will come to them, resulting in an increase of traffic for the company.

In addition to supplying information to manufacturers and business men, the industrial department informs its own officials of the resources and conditions of the territory tributary to its lines. They can thus carry on the work of the road more efficiently and be more able to make reasonable rates.

The policy of the carriers has been, in the first place, to get industries well located and then, to make them prosper so that the company may prosper with them. The roads are as interested in securing the right industry in the proper place as the industries are themselves. If the plant is improperly

located so that it does not prosper, the railway will not receive a great deal of traffic and at the same time there will be a dissatisfied customer who will not draw traffic to them.

Different lines have different methods for the securing of industries. A plan that would produce good results in one section of the country might prove unsatisfactory in another. As stated by one writer, "Every project must be judged individually. It would not do to place a common brick yard in New York in the hope of selling common brick in Chicago, whereas, on the other hand, a silk glove manufactory could prosper in any part of the United States where labor could be secured".[1]

To enable a manufacturer to produce at the lowest cost and maximum net profit, he must be located as advantageously as practicable in regard to natural resources, labor supply, transportation facilities and markets. There is probably no one better suited to assist in locating industries than a wide awake industrial agent, who has made an exhaustive study of the natural resources, labor supply and other industrial conditions of his territory.

This industrial commissioner should come in close touch with the factories, their owners and managers and also the business men of the towns. He should know the kinds of raw materials available in his territory and where located. He should be well informed as regards the prejudices for and against certain industries in the various localities and the reasons for such prejudices. The population of a town and its

1. Work of the Industrial Department of Railways, Railway Age Gazette, January 3, 1908.

surrounding territory is important to all prospective manufacturers for on that to a large extent depends the labor supply. The business man is desirous to know what percentage of the laborers own their homes. As a general rule, those who own their homes are more conservative and so are not as likely to quit work on a momentary impulse. The commissioner should also acquaint himself with the educational advantages offered at different points and also the degree of intelligence of the community. Manufacturing establishments are more easily attracted to an intelligent, peace abiding community than to one where such conditions do not prevail. The character of the labor supply should also be definitely ascertained for each locality. Where there is plenty of work for men, but little for women, industries employing women should be encouraged and vica versa.[1]

The nationality of the labor supply is frequently of great importance to the employer and so should be definitely known. There are often racial characteristics in the different trades. Certain races and nationalities are more skilled and better suited for a given class of work than others. Thus industries employing those nationalities should be persuaded to locate where such labor is available.

A business man seeking a location will closely scrutinize the assessed value of a town and its tax rate, as high taxes tend to increase the cost of operation. Closely associated with the taxes of a town are the costs of living. If the living expenses are high as compared with other places, it will usually

1. The Industrial Commissioner, W.H. Manss, Railway Organization and Working. E.R. Dewsnup (Editor)

mean that the employer will have to pay higher wages. By paying higher wages than his competitor, he will not be able to compete successfully with other producers.

Since usually at one time or another business men desire the use of banks, they are interested in their number, deposits, and capitalization. The bank's facilities for savings and making loans are of the utmost importance since the various establishments are continually compelled to seek loans to carry on their business. They will not locate where loans are difficult to secure and interests rates high.

A complete list of all establishments in the towns along their lines is kept by the railways for the use of producers seeking a location. They desire to know in most cases what other industries are operated at the same place that they intend to start up, so that they can tell whether their line of operation will conflict with those already there or work in harmony with them. All of these many things mentioned should be definitely known by all industrial commissioners so that they can talk intelligently to a prospective promoter.

When locating an industry the usual method of procedure is that of observation and study to see if a certain place is fitted for the particular concern seeking to start up. In the case that it is a plant which will use the raw material close at hand, they are analized to ascertain whether they are suitable. As for example in the case of a glass making factory, an expert analysis the sand in the surrounding territory and estimates the probable supply. The shipping routes, freight rates and markets are then studied, If the results are favorable

glass manufacturers are prevailed upon to move to that district. If the experiment proves a success, other producers will come and as a result, the traffic of the road will increase. The same method is used in securing other concerns.[1]

As a result of such schemes the Baltimore and Ohio Railway reported that for the year ending June 30, 1914 one hundred and sixty-seven new manufacturing and commercial establishments were located on or immediately adjacent to its lines. From these the company should derive a substantial freight revenue. The company, furthermore, constructed one hundred and ninety-four sidetracks, one hundred and forty of these were built for the use of new concerns and twenty-seven of the remaining for the use of old ones.

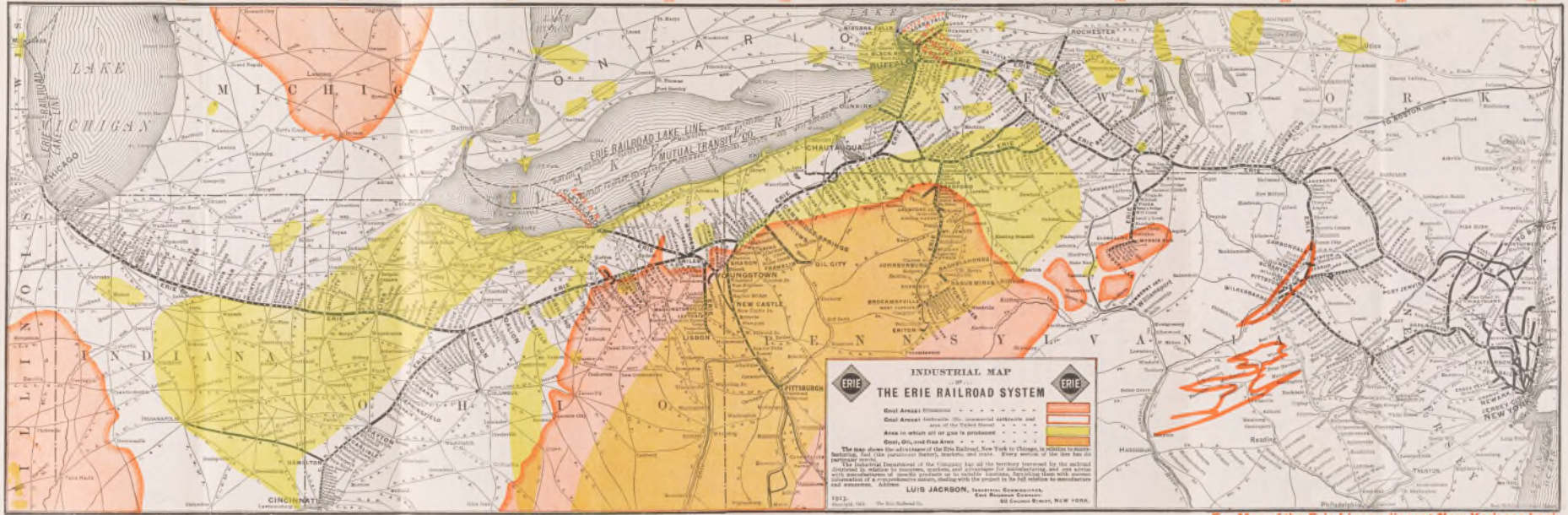
The railways are very instrumental in forming commercial clubs and organizations in the towns along their right of way. These associations cooperate with the railways to pass upon applications for industries in their respective localities so that they may be favorably located. Many of these clubs in the large cities print pamphlets and booklets in regard to the particular communities. They willingly distribute these among prospective manufacturers. These booklets in most cases contain photographs and views of the town and places of interest near at hand. These pamphlets also give the industries already located and the names of those for which there is an opening. The railway rates, facilities and advantages are discussed in the booklets. If the company desiring a place to start business

1. The Work of the Industrial Departments of the Railways, Railway Age Gazette, January 31, 1908.

is a new one and seems promising, these commercial organizations through their members will often subscribe to the stock of the company or donate land for them to erect their buildings and in this manner help them to get started.

For the purpose of calling attention to the towns and opportunities offered in their localities, the carriers also resort to the distribution of printed pamphlets. These contain the names of all the cities in the various districts classified according to the state. It gives the population of the cities, the price of land adjoining, the number of banks and their deposits, the educational and social advantages as well as suggestions as to occupations for which there are openings. Frequently these circulars state at what points there are opportunities for those interested in the professions as doctor or lawyer. Again other bulletins discuss the raw materials as clay, coal, salt, sand, and other minerals, which are available in the different sections of the country. The railways make a great deal of their transportation facilities in these pamphlets and proclaim the superiority of their track, road bed, and service over that of their competitors. Photograps showing sections of their track installed with block signals and other safety devices are incorporated in the publications. Many of these issues contain industrial maps, which show the position of the road in relation to large commercial centres and markets as well as their proximity to natural resources and connections with other carriers.

Often it is difficult for an establishment to secure suitable land conveniently located in reference with reference



For Map of the Erie Lines adjacent New York see back.

to the railways' facilities. In such cases, in order to attract the new industries, the carrier will frequently lease part of its property to them at reasonable prices. At other times they will sell the new organization part of their land to enable them to erect their buildings close to the tracks.

Closely associated with this work of leasing parts of their land is that of building spur tracks and sidings for the accommodation of the new establishments. Formerly, most manufacturers were required to deliver the commodities, which they desired to have transported, to the railway terminal. With the growth of larger firms this method became too cumbersome and, therefore, there grew to be a demand for such track relief in order to eliminate this large amount of drayage which was formerly necessary.

Another item which concerns shippers to a very large extent is the freight rate. The producer and traffic manager must discuss together the problem of rates so that satisfactory rates will be secured. While legislatures, both, national and state, have repeatedly passed laws and appointed commissions to prohibit unjust discrimination in freight rates, the time is still far distant when some shipper does not have his goods carried at a lower cost than his competitor. This is due not only to the complicated conditions under which traffic is handled, but also the methods of packing and describing the commodities that are to be transported. By pointing out the various methods by which a shipper can thus reduce his freight expenses as against his competitor, the railway is often able to gain a patron. As the traffic increases, the carrier may further aid

the manufacturer by making commodity rates. The railways will very often, for a time, offer to carry freight at rates which barely cover expenses in order to get him firmly established. In other cases the carrier will carry the raw materials at a loss in order to enable the establishment to compete successfully with a competitor. This loss is, however, made up in the long run by the expansion which will usually occur in the industry with its resultant increase in traffic and probably higher rates.

In order to hold the traffic of a concern after it has been well located, the railways must provide suitable facilities and service. They must see that they have sufficient cars and locomotives to move the traffic with the least delay. Formerly where a 40,000 pound car was considered sufficient, it is now necessary to provide 80,000 and 100,000 pound cars. Special equipment such as refrigerator cars must frequently be provided by the carrier in order to hold a certain class of traffic.

Just as important as providing suitable cars and locomotives for carrying the freight, is the work of providing of suitable terminal facilities. The industrial department should endeavor to get the proper officials to so arrange the yards that congestion will not occur. Loading and unloading tracks must be provided as well as large inbound and outbound freight houses. The team tracks should be so located that they are easily accessible to all shippers.[1]

Since all industries do not desire the same kind of service, the railways have divided it into three classes to

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1. The Railway Terminal and its Relation to Industrial Development, F.A. Spink, Proceedings of the Railway Development Association, November 1914.

accommodate them all. The first class is called the quick dispatch and consists mostly of goods of a perishable nature or such commodities as must be transported in as short a time as possible. The second class is called the time freight and includes commodities which must be transported with reasonable certainty and with a considerable amount of dispatch. The third class or slow freight consists of low grade commodities as coal, iron ore and sand. This class of freight commands very low rates and usually travels in carloads.[1] In many cases the railways will also install local trains for the accommodation of certain shippers, if the traffic appears to warrant it.

Similar to the above methods of winning the favor of the shipper and holding his trade are the privileges of milling in transit, compression of cotton and like favors. Through the efforts of the industrial department the millers are given a low through rate on their grain with the privilege of having it ground on the way. In the same manner the cotton shippers are allowed a low through rate and given the privilege of having it compressed at some intermediate large distributing centre. The manufacturers are also in many cases given free lighterage at the seacoasts.

In addition to the free lighterage, the carriers have expended large amounts of money in building docks and wharves at the principal ports. These are built entirely for the benefit of large producers in order to handle their exports and imports with the greatest care and dispatch. Large graineries for the storage of grain have been built by many roads at the seaports

1. Railroad Traffic and Rates, Johnson and Huebner.

and at the large distributing centres.

The railways must not only provide suitable facilities for carrying the traffic, but they must also carry it safely. Because of the carriers' failure to deliver the freight without loss or damage, claims are made against the company. Some of these claims may be overcharges, while others are for loss. In many cases the industrial agent endeavors to secure as prompt attention to the claims of his customers as possible by taking the matter up with the traffic department. Shippers are often found to be impatient with the claim department, for it seems to them that the railway tries to put them off and thus avoid payment. A road which promptly settles its claims is bound to secure results by an increase in traffic.

Many manufacturers and jobbers of to-day have distant markets and so in order to save transportation charges, they must build warehouses and ship goods in large quantities to the storehouses and then distribute them locally. The retail merchant of to-day does not carry a large amount of stock on hand but depends upon the jobber to do it while he orders in small consignments. When the industrial department cannot induce the company to locate on its line, they persuade and encourage the manufacturer to build warehouses along its right of way. In some cases the railroads build the storehouses themselves and make a small charge for their use by the industries in order to encourage traffic to go over their road.

The railways are continually on the lookout for opportunities to help the manufacturers in their territory to find markets. Usually the carriers have agents in all parts of

the country who can thus keep in touch with conditions and demands in their district. He can then inform the producers of such markets and help them sell their commodities. At present, there has been a great deal of discussion in regard to creating foreign markets. Shall the commodities used in China, Japan, and South America be manufactured in the United States or by England and Germany? Will the locomotive used to haul traffic in South America be built at Schnectady, Philadelphia or Dunkirk or will England manufacture them? The carriers have a large share in this development. If they can cheaply and quickly dispatch these commodities to the seacoast, the manufacturers can successfully compete in England and Germany.

The industrial department demands cooperation more than perhaps any other department of the railroad. In locating a manufacturer, who desires a new center, the industrial commissioner must consult the freight and passenger department on questions of rates. If side or spur tracks have to be built, the operating and engineering departments have to be consulted, In case a lease of company land is desired, the real estate and tax agent must be interviewed. If contracts are to be drawn up, the law department must be consulted. Similarily the auditing, claim, and advertising departments are involved.[1]

A large part of the resources and energies of the traffic department are taken up in the solicitation of business and the struggle with shippers, competing lines, and public authorities over rates charged on existing traffic. It is as

1. The Industrial Commissioner, W.H. Manss, Railway Organization and Working. E.R. Dewsnup (Editor)

important to develop the largest practical traffic as to get reasonable rates for transporting it. One is apt to think that if as much money, energy, and thought were devoted to the creation of entirely new freight as is expended in soliciting and dealing with rates on traffic already existing, the results gained would be remarkable. In the future, the industrial agent will, undoubtedly, become one of the most potent agencies in the country for promoting production along all lines and increasing national prosperity.

V. Freight Solicitation.

In a study of the methods of developing railway freight traffic freight solicitation should very properly be included, as it was undoubtedly the first and, for a long time, the only method employed by the railways in securing traffic. Freight solicitation is carried on by agents, called freight solicitors. The solicitors were formerly keen bargainers and used as their chief asset for securing traffic rebates and secret rates. They sold transportation to those of the public, who took it by wholesale, at prices and terms different from those on which they sold it to the individual, who took little of it. They gave rebates and unfair privileges to those of sufficient commercial importance to demand them, while denying these concessions to others. Frequently, the large concerns as the Standard Oil Company performed some favor for the railroad and received as their reward lower rates. In the case of the Chicago and Omaha Pool the Standard Oil Company acted as an evener for the three railways and in return secured rates, which were far below those granted to its competitors.

This system failed to take into account the fact that the fate and fortune of industries, of individuals, and communities could be made or marred by a few men controlling them. As a result, public opinion was aroused. State and Federal regulation put a stop to such methods and freight solicitation has, therefore, changed in character.

As a general rule the freight solicitation of a railway is under the supervision of the general freight agents. They are generally so busily occupied with other duties that they

do but little actual solicitation. They usually divide up their territory into districts and leave the actual work of solicitation to a large number of commercial and traveling agents. Some of these solicitors are assigned to a particular territory and make the rounds among shippers, as any salesman for an industrial concern does, while others are delegated as special agents. Solicitors are not confined entirely to the territory covered by the railways lines, but are sent out to all parts of the country to get shippers to route their freight over a particular line.[1]

The traveling salesman of this sort brings the message direct to the possible shipper and is on a par with the agent of a competing road, for he knows that rebates and discriminations cannot be used. His success in securing freight depends, for the most part, upon the facilities of his particular road, upon his ability to point out new markets to a shipper, upon the prompt settlement of claims by the claim department of his road and to a large extent upon his ability as a salesman.

The freight solicitor works somewhat at a disadvantage as compared with the ordinary salesman of an industrial concern. Such a one usually has the samples of the article that he desires to sell and so can display them before the buyer. He can point out their good qualities and the buyer knows exactly what he is buying. With the freight solicitor conditions are entirely different. He has no samples and so has nothing to show the shipper. Instead of being equipped with samples, he must be thoroughly acquainted with the traffic conditions on his own

1. Railroad Traffic and Rates, Johnson and Huebner.

line and those on competing lines. He must know his competitor's weak points and have well at hand the advantages of his own line.

The solicitor should be a skilled salesman and should show tact in the handling of his customers. He must be well versed in the art of conducting negotiations and in pacifying shippers who have real or supposed grievances. His information as regards the rates on various commodities, the time that is required to transport these articles varying distances, and the regulations and methods used in transporting freight by his com. company should be as good as that of the traffic manager. By visiting the different manufacturers in various parts of the country and endeavoring to secure their traffic, the freight solicitor can in many cases advise them as to markets for their products and thus place them under obligations to ship over his road.

Sometimes a solicitor is given too large a territory to cover or in many cases the railway, after it has secured the traffic of a certain shipper, may rest content with the business thus established. They live in the hope that the shipper will continue to ship over their line, and the solicitor is then sent to another place to do the same thing. A producer of traffic once secured for the road should not be left in this condition. The invasion of competitors should always be guarded against and the shipper's interest in the railroad kept alive by frequent visits. If the solicitor cannot visit the shipper once every few months, he should call upon him once a year or as often as possible. In no case should the shipper be totally

disregarded for conditions may arise in the interval which will demand the solicitor's attention.

All the traveling and commercial agents of a railway should be brought together at various intervals so as to compare methods used and the results obtained. At these meetings the different agents should be called upon to describe their methods of handling a certain class of shippers. It might also, in the case of a large railway, be advisable to print a magazine which could be distributed among the different agents. In this magazine could be shown the results of the solicitors in the various districts. It should serve the purpose of keeping the agents wide awake in the same manner that salesmen's magazines of large industrial concerns do.

The solicitor will naturally appeal first to the shipper for his freight, but if for any reason he fails with him, he can solicit the consignee. If a certain consignee receives large shipments of freight and the railway is unable to get the consignor to ship it over their road, they can appeal to the consignee to instruct the shipper to send it over a certain route and road. Frequently the solicitor is furnished with blank forms upon which can be placed the date, the name of shipper, consignee and a request to ship the freight over a specified road. When the consignee's signature has been secured, this serves as a routing order. The blank on the following page is such a form used on the Pennsylvania Railroad. This is then sent to the consignor. In other cases the consignee is furnished with stickers, which he can affix to his letterheads when writing to the shipper, in order to refresh his memory that he,

No..... 19

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Until otherwise requested, please forward all FREIGHT
for the undersigned via:

PENNSYLVANIA RAILROAD

This cancels all previous shipping and routing requests

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the consignee, desires his freight carried by a certain road. Solicitation of this sort can be used only in case the contract between the shipper and consignee has not deprived the consignee of the privilege of specifying the desired route.[1]

Since the station agent comes into touch more directly with the public than almost any other official, the railways have made him a solicitor for traffic and the representative of the company in handling questions arising between the patrons and the company. He knows the local conditions at his station, the business men of the town, their wants and the quantity of their shipments. By furnishing cars promptly and at all times looking after their interests, he can create and hold a large traffic for his road.

A somewhat new and unique plan of securing traffic has been tried out on the Frisco. A supply of individual business cards and prospective traffic cards are furnished all passenger conductors on the Frisco with the object of having them assist in the solicitation of business. The cards bear the motto, "It will always be our desire to make your trip comfortable and pleasant on the Frisco". The traffic cards read thus, "Let us have an opportunity to demonstrate to you that we can handle C.L. and L.C.L. business to your entire satisfaction. Our service is strictly first class".[2] When a conductor meets a prospective shipper, he gives him two sets of cards to fill out. These cards are then mailed to the superintendent of the division on which

1. Railroad Traffic and Rates, Johnson and Huebner.
2. A New Plan for Stimulating Traffic on the Frisco, Railway World March 1914.

the conductor is employed. He, in turn, forwards them to the proper traffic official. A record of the number of cards sent in by each conductor is kept for comparison and other purposes. Thus the company is able to see which conductor is the most active and is working hardest for the company and reward them accordingly. Conductors, as a general rule, have sufficient time for work of this sort in as much as collecting tickets and looking after the wants of passengers do not take up all of their time.

VI. Conclusion.

To no country is the highest type of transportation more vital than to the United States. From an industrial standpoint the necessity for excellent transportation is very great in this country. While competitive rate-making and railway construction have been declining as means of developing traffic, other newer methods have been developed. The railways have increased the population along their lines and have increased the productivity of the soil by distributing literature, running demonstration trains, conducting experimental farms, employing agricultural experts to make investigations and by giving lectures and advice thereon.

The vast copper deposits of Michigan as well as those of Montana and the coal mines of the West were developed by the railways looking for more revenue. The fruit industry of California was created and made into a large paying industry by the Santa Fe and Southern Pacific railroads. The immense corn and wheat fields of the West were developed to the extent that seeds were furnished and inducements offered by way of cheap fares and rates.[1] The cutting and marketing of the southern forests has been greatly aided by the carriers in building lines to the timber tracts and by endeavoring to establish mills. Many large industries in all parts of the United States are located where they are and prospering due to the beneficial aid received by them from the railroads.

The economic welfare and future of the United States is dependent upon the efficiency and economy with which it can

1. Address of W.L. Park, Proceedings of the Railway Development Association, November 1914.

produce and market its products. The railways in this country by the boldness and rapidity by which they constructed new lines into the undeveloped territories, by the excellent service, by the low rates and their proper adjustment to economic c conditions have done more than any other agency in the United States to bring about the unsurpassed development of population, of industries and of agriculture. The earlier conditions of development, which have mostly passed away, required extensive treatment while the new conditions require an intensive or more thorough treatment in order that our prosperity continue and our nation be conserved.

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